

A NEW SPECIES OF *ANTENNARIA* (ASTERACEAE)  
FROM MONTANA AND WYOMING

ERWIN F. EVERT  
1476 Tyrell, Park Ridge, IL 60068

ABSTRACT

A new species, *Antennaria aromatica*, from Montana and Wyoming is described and compared with the morphologically similar *A. media*, *A. umbrinella*, and *A. alpina*.

Because over three hundred North American species of *Antennaria* are listed in the Gray Herbarium Card Index, it is with some trepidation that I describe yet another one. However, field observations, examination of herbarium specimens, and cytological evidence indicate that a distinct species, *Antennaria aromatica*, exists in the mountains of Montana and Wyoming.

*Antennaria aromatica* Evert, sp. nov.

Herba perennis humilis tomentosa glandifera aromatica, 2–6 cm alta. Folia basalia cuneata vel spatulata, tomentosa, 5–10 mm longa, 3–8 mm lata. Caules tomentosi glandiferi, 2–5 cm longi. Capitula 2–5, in cyma subcapitata. Involucra fuscata, acuta vel obtusa, 4–7 mm alta. Corollae pistillatae 4 mm longae, corollae staminatae 3 mm longae. Achenia tuberculata 1.5–2.0 mm longa. Pappus pistillatus capillaris ca. 4 mm longus, pappus staminatus clavatus 3 mm longus (Fig. 1).

Plants low, mat-forming, short-stoloniferous, tomentose, stipitate-glandular, aromatic in life, dioecious, perennial, 2–6 cm tall, from suffrutescent caudices clothed with marcescent leaves; basal leaves widely cuneate-spatulate to occasionally oblanceolate, densely persistently white-tomentose on both surfaces, glandular, mucronate, 5–10(–13) mm long, 3–8(–10) mm wide; cauline leaves densely to loosely tomentose on both surfaces, glandular, linear-lanceolate to oblanceolate, 0.5–2.0 mm wide, 3–7 mm long, the upper-most frequently with a brown, scarious acute apex; stems loosely tomentose, glandular-puberulent, 2–5 cm long; heads (1–)2–5, in a close corymbiform or sub-capitate cyme, 8–20 mm wide; pistillate involucre 5–7 mm high, basal portions of the phyllaries loosely tomentose-arachnoid, usually glandular, light-green or light-brown, terminal portions scarious-erose, dark to light-brown or dark-green, obtuse or more frequently acute, the base of the terminal scarious portion

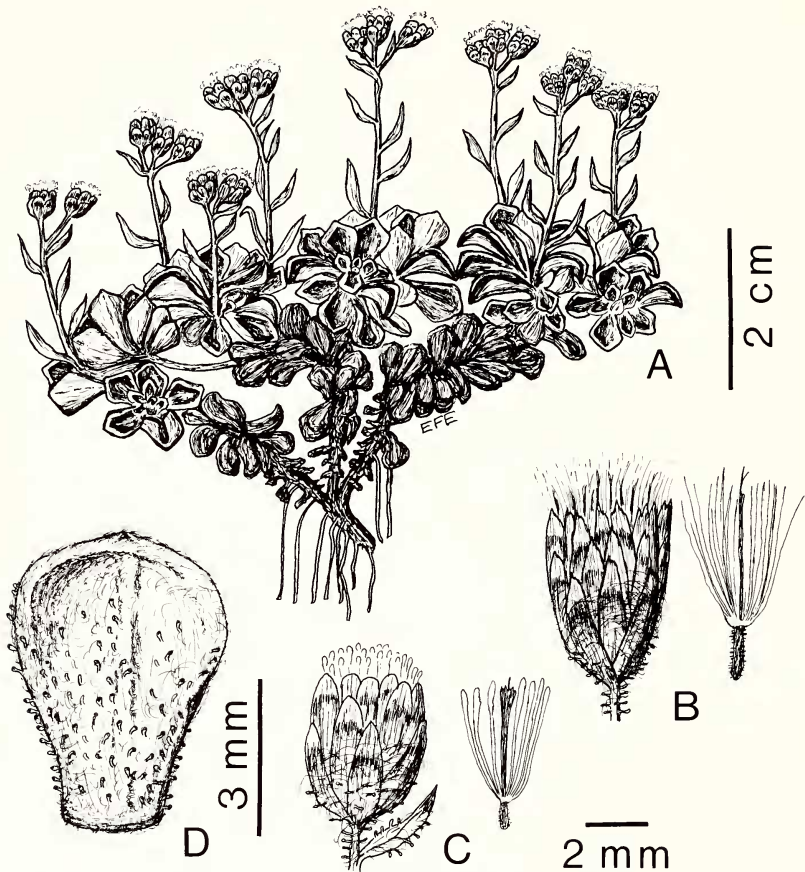


FIG. 1. *Antennaria aromatica*. A. Habit. B. Pistillate capitulum and pappus. C. Staminate capitulum and pappus. D. Leaf. From Evert 3406.

often conspicuously darker than the tip; staminate involucre 4–6 mm high, basal portions of the phyllaries frequently glandular, loosely tomentose, brown or green, the terminal scarious portions dark brown below, usually light-brown above, acute or more frequently obtuse; pistillate corollas ca. 4 mm long; staminate corollas ca. 3 mm long; achenes 1.5–2.0 mm long, sparingly tuberculate; pistillate pappus capillary-barbellate, ca. 4 mm long; staminate pappus with clavately dilated tips, ca. 3 mm long; receptacle flat to convex; chromosome number  $2n = 28$  (Bayer and Stebbins 8092).

TYPE: USA, MT, Carbon Co., Beartooth Range along Hwy. 212, ca. 0.8 km n. of Quad Cr., T9S R19E NW  $\frac{1}{4}$  S20, 2928 m; open, dry scree and talus with *Artemisia michauxiana*, *Astragalus kentrophyta*, *Cymopterus hendersonii*, *Erigeron compositus*, *Festuca ovina*,

*Hulsea algida*, and *Senecio canus*, 5 Aug 1981, E. F. Evert 3406 (Holotype: RM; isotypes: MO, MONT, MOR, NY, UC).

PARATYPES: USA, MT, Cascade Co., summit of Tiger Butte, limestone, 2135 m, 19 Jul 1887, *Williams 992* (MONT), 11 Jul 1980, *Bayer and Stebbins 8113* (CAS, UC); Gallatin Co., Bridger Range, valley n. of Sacajawea Peak, rock slide, 2592 m, 31 Jul 1938, *Pennell 23835* (F, PH); Carbon Co., along Hwy. 212 at Quad Cr., metamorphic rock, 2592 m, 6 Jul 1980, *Bayer and Stebbins 8092* (DAV, OS); WY, Park Co., along road to Line Cr., 1372 m, 18 Jun 1976, *Robertson 1110* (RM); top of Sheep Mtn., ca. 21 km sw. of Cody, T52N R104W SW  $\frac{1}{4}$  S24, on limestone, 2165 m, 24 May 1980, *Evert 1780* (RM); n. side of Cedar Mtn., ca. 8 km w. of Cody, T52N R102W NE  $\frac{1}{4}$  S8, limestone, 1892 m, 7 Jul 1981, *Evert 3015* (RM); w. summit of Heart Mtn., ca. 32 km n. of Cody, T54N R102W NE  $\frac{1}{4}$  S15, limestone, 2380 m, 30 Jul 1981, *Evert 3333* (RM); limestone ridge, ca. 0.8 km w. of Dead Indian Campground, ca. 40 km nw. of Cody, T55N R104W SE  $\frac{1}{4}$  S7, 2165 m, 6 Aug 1981, *Evert 3420* (RM).

*Antennaria aromatica* is a sexually reproducing diploid species (Bayer in press) consisting of roughly equal numbers of staminate and pistillate individuals in all populations examined. This *Antennaria* is remarkably uniform morphologically throughout its known range from Cascade Co., Montana south to Park Co., Wyoming. *Antennaria aromatica* most closely resembles *A. media* Greene and *A. umbrinella* Rydb. in its low stature, stoloniferous habit, and dark-colored phyllaries. However, *A. aromatica* can be differentiated from both *A. media* and *A. umbrinella* by its copious and persistent glandulosity, widely cuneate-spatulate basal leaves, and distinctive citronella-like odor. This odor is not detectable in dried material. Furthermore, *A. aromatica* is apparently not abundant in nature and tends to be associated with limestone, where it is found on talus and in rock crevices in exposed xeric habitats at elevations of 1372–2928 m. The relatively ubiquitous *A. media*, a tetraploid species (Bayer and Stebbins 1981), and *A. umbrinella*, with which *A. aromatica* is sympatric through its known range, tend to favor slightly more mesic or alpine habitats and do not display a marked preference for talus or limestone. *Antennaria aromatica* might also be confused with the hexaploid apomict (Halliday 1976), *A. alpina* (L.) Gaertn. *Antennaria alpina* is distinguished from *A. aromatica* by its narrowly spatulate basal leaves, usually glabrous upper leaf surfaces, virtual absence of staminate plants, and more northern, Eurasian and Arctic distribution.

#### ACKNOWLEDGMENTS

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